Supporting Information for

$Bi_xTi_{1-x}O_z$ Functionalized Heterojunction Anode with an Enhanced Reactive Chlorine Generation Efficiency in Dilute Aqueous Solutions.

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Number of pages: 4 (including the cover page)

Number of figures: 3

Number of tables: 0

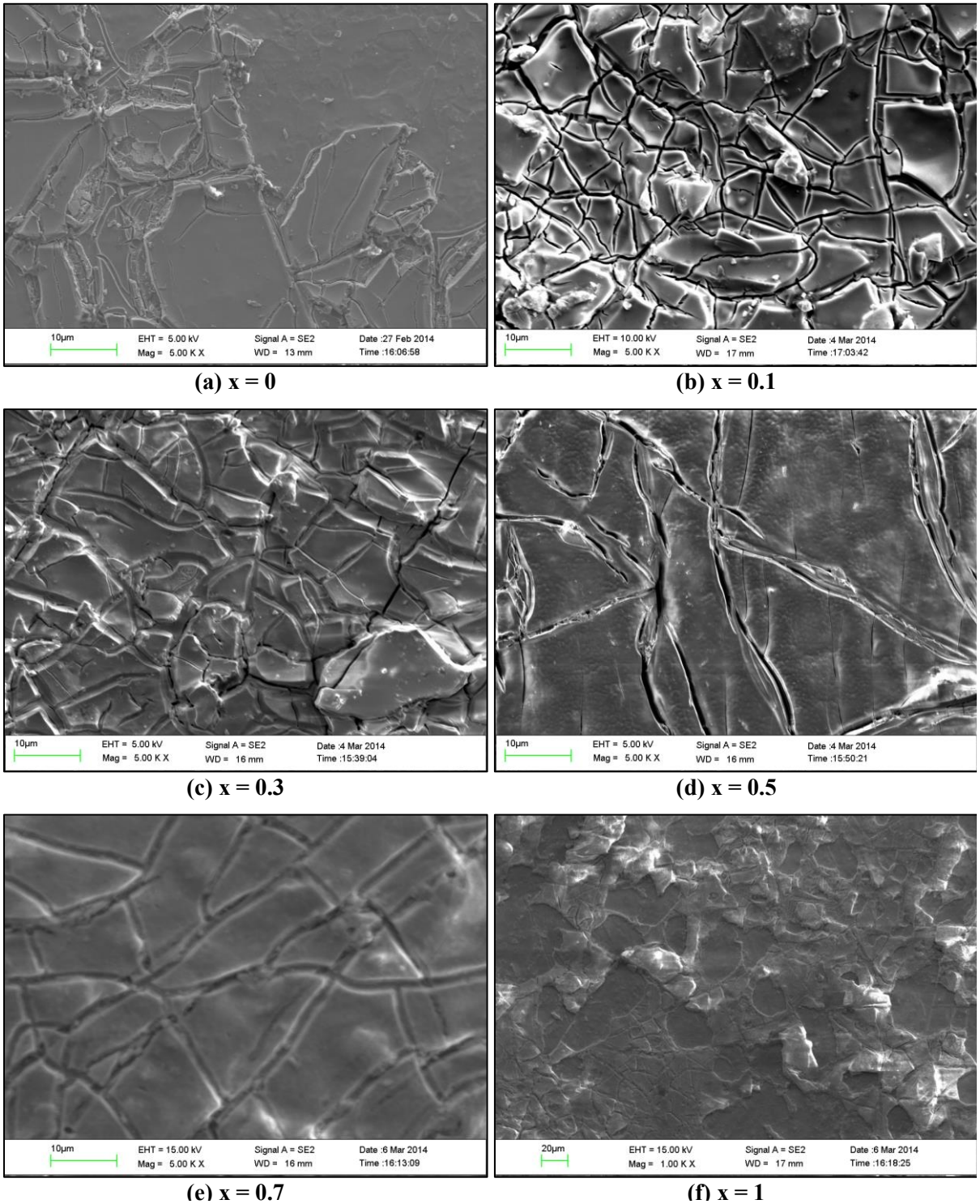
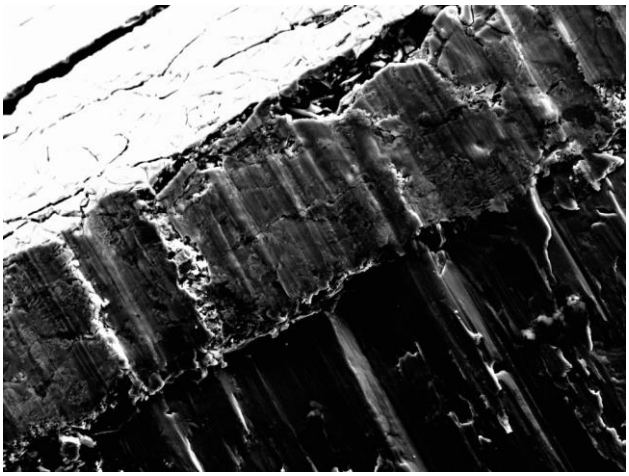
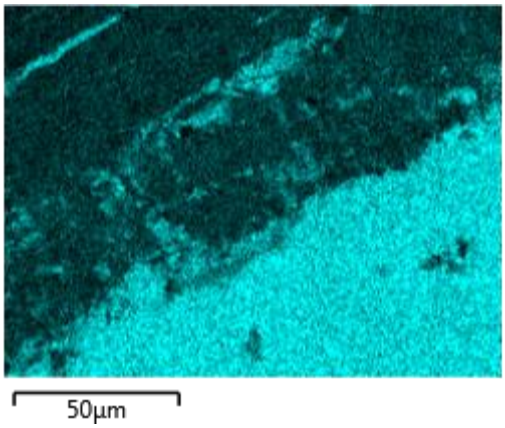


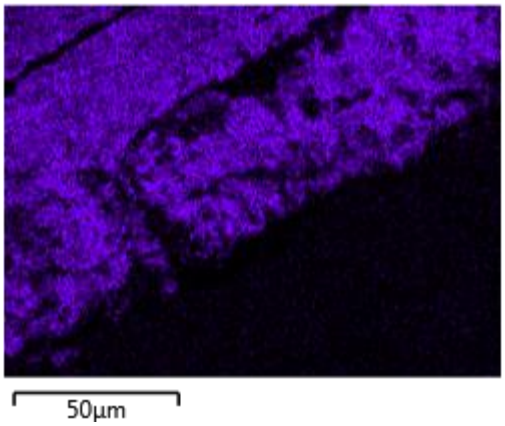
Figure S1. Scanning Electron Microscopy (SEM) images of horizontal view for $Ir_{0.7}Ta_{0.3}O_y/Bi_xTi_{1-x}O_z$ hetero-junction anodes with variable molar fraction of Bi (x) with magnification of ×5000 (a – e) or ×1000 (f).



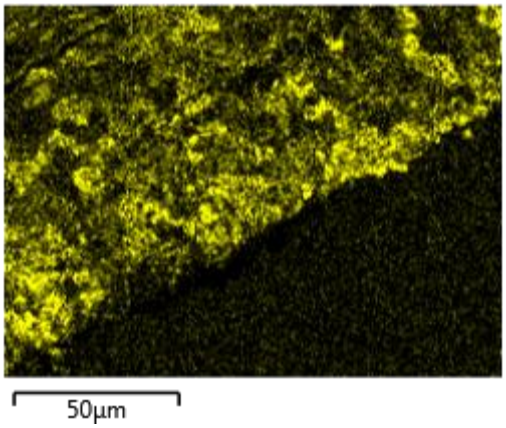
(a) SEM Image



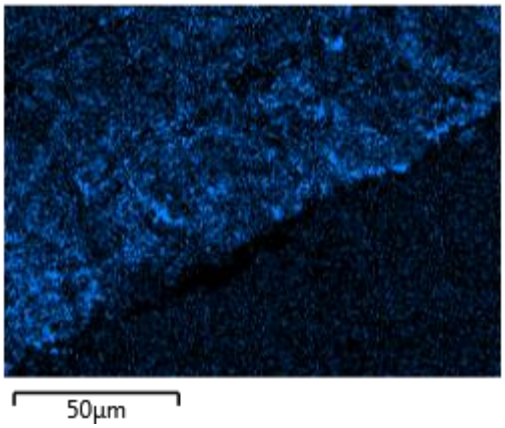
(b) Ti



(c) Bi



(d) Ir



(e) Ta

Figure S2. (a) Scanning Electron Microscopy (SEM) image of cross-section view for $Ir_{0.7}Ta_{0.3}O_y$ /$Bi_{0.3}Ti_{0.7}O_z$ hetero-junction anode with Energy Dispersive Spectroscopy (EDS) mapping of (b) Ti, (c) Bi, (d) Ir, and (e) Ta.

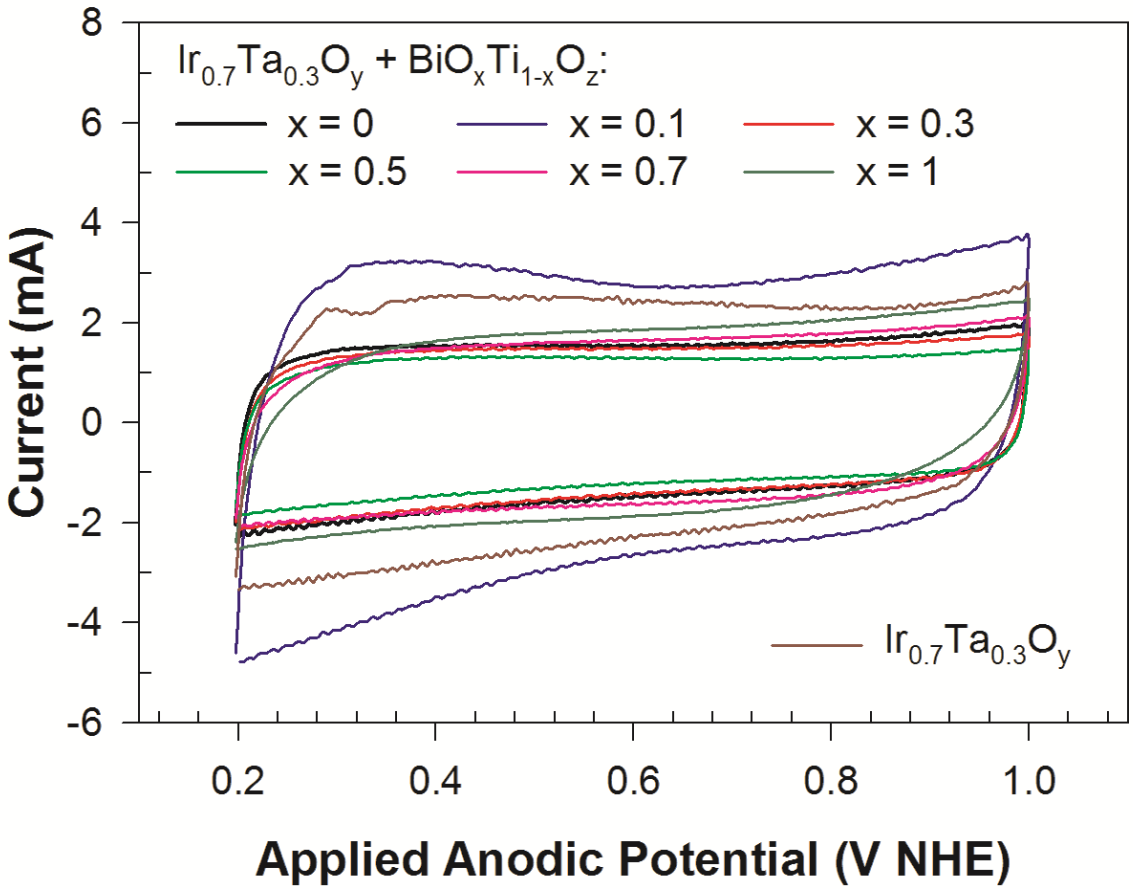


Figure S3. Cyclic voltammogram of $Ir_{0.7}Ta_{0.3}O_y/Bi_xTi_{1-x}O_z$ hetero-junction anodes with variable molar fraction of Bi (x) for estimation of integrated charge (Q*); counter electrode: stainless steel, geometric surface area: 3×2 cm^2, electrolyte: 50 mM NaCl, scan range: 0.2 – 1.0 V, scan rate: 20 mV s^{-1}. Data for $Ir_{0.7}Ta_{0.3}O_y$ anode are shown as references.